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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/645,875	08/25/2000	Yoshikatsu Uetake	OKI 260	4073
23995	7590	05/16/2005	EXAMINER	
RABIN & Berdo, PC 1101 14TH STREET, NW SUITE 500 WASHINGTON, DC 20005			HAN, CLEMENCE S	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 05/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/645,875

Applicant(s)

UETAKE ET AL.

Examiner

Clemence Han

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 1-3 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Murata et al. (US 4,759,010).

Regarding to claim 1, Masuda teaches A digital switching system, comprising: multiplexing means 1 for multiplexing time slots from a first plurality of circuits (Column 1 Line 15-18); switching memory 20 means for storing and switching data of the time slots from the multiplexing means, for one frame period; switching control means 10 including a switching correspondence means 10 for directing interchange of the time slots stored in the switching memory means 20 in response to a switching request (write control signal 306) from a network received through an upper layer controller (Column 1 Line 26-30); and demultiplexing means 2 for demultiplexing into a second plurality of circuits (Column 1 Line 18-22), time slot data read out of the switching memory means 20 using as addresses data from the switching correspondence means 10 (Column 1 Line 26-30), the switching correspondence means 10 comprising: information receiving means 112, 113 for receiving connection information (control data D) from the upper layer

controller 40 (Column 6 Line 45-49); read-out controlling means for storing the connection information (control data D) corresponding to before or after switching, received through the information receiving means 112, 113, to addresses (address signal ADR) designated by the connection information in one of a first memory means 12 and a second memory means 13 (Column 5 Line 31-34), and for sequentially reading out the stored connection information in read-out order of the switching memory means 20 (Column 6 Line 34-37); network switching control means 30 for generating a switching signal (WS and SE in Column 5 Line 40-41) in synchronization with an internal timing standard (Column 4 Line 38-39) in response to the switching request (write control signal 306) provided by the upper layer controller 40; and read-out selection means 117 for selecting read-out from one of the first memory means 12 and the second memory means 13 of the read-out controlling means in response to the switching signal provided by the network switching control means (Column 5 Line 67 – Column 6 Line 2).

Regarding to claim 2, Masuda teaches wherein with respect to the read-out controlling means, the first memory means 12 and the second memory means 13 are capable of independently and simultaneously writing and reading (Column 5 Line 51-54 and Column 5 Line 67 – Column 6 Line 2).

Regarding to claim 3, Masuda teaches wherein the network switching control means 30 generates the switching signal to coincide with a beginning of a frame (Column 5 Line 1-6).

Regarding to claim 5, Masuda teaches a method of switching data in a digital switching system, comprising: a multiplexing step of multiplexing time slots from a first plurality of circuits (Column 1 Line 15-18); a writing step of sequentially writing into a switching memory 20 data of the time slots multiplexed by the multiplexing step (Column 1 Line 15-18); a data interchange step comprising receiving connection information (control data D) from an upper layer controller 40, corresponding to before and after switching (Column 6 Line 45-49), writing the connection information (control data D) in a control memory 12, 13 at addresses (address signal ADR) designated by the connection information (Column 5 Line 31-34), sequentially reading out the connection information stored in the control memory 12, 13 as read-out order for the multiplexed time slot data written in the switching memory 20 (Column 6 Line 34-37), in synchronization with an internal timing standard (Column 4 Line 38-39) in response to a switching directive (write control signal 306) from the upper layer controller 40, so as to change accommodation destinations of the multiplexed time slot data (Column 1

Line 26-30); and a demultiplexing step of demultiplexing the data from the data interchange step into a second plurality of circuits (Column 1 Line 18-22).

Regarding to claim 6, Masuda teaches wherein the data interchange step comprises: an information receiving step of receiving the connection information (control data D) from the upper layer controller 40 before switching, and the same after switching, respectively (Column 6 Line 45-49); an information input/output step of storing the connection information (control data D) received in the information receiving step (Column 5 Line 31-34), and reading out the connection information received before and after switching (Column 6 Line 34-37); a switching signal generation step of generating a switching signal (WS and SE in Column 5 Line 40-41) for switching in synchronization with the timing (Column 4 Line 38-39) in response to the switching directive (write control signal 306) of the connection information received from the upper layer controller 40; a selection step of selecting the connection information after switching all of the connection information as read out in the information input/output step in response to the switching signal generated (Column 5 Line 67 – Column 6 Line 2); and a read-out step of reading out the multiplexed data as written in the writing step on the basis of the connection information selected in the selection step (Column 1 Line 18-30).

Regarding to claim 7, Masuda teaches wherein the data interchange step comprises: an information receiving step of receiving the connection information (control data D) supplied from the upper layer controller 40 before switching, and the same after switching, respectively (Column 6 Line 45-49); an information writing step of writing the connection information (control data D) for use after switching all of the connection information received in the information receiving step (Column 5 Line 31-34), when a switching request (write control signal 306) is delivered from the side of the upper layer 40; a switching signal generation step of generating a switching signal (WS and SE in Column 5 Line 40-41) for switching in synchronization with the timing (Column 4 Line 38-39) in response to the switching directive (write control signal 306) of the connection information received from the upper layer controller 40; a copying step of reading out the connection information (control data D) after switching on a rising edge of the switching signal generated in the switching signal generation step as the connection information before switching (Column 5 Line 25-33); a read-out step of storing the connection information (control data D) as read out in the copying step (Column 5 Line 31-34), and reading out the multiplexed data as written in the writing step on the basis of the connection information (Column 1 Line 18-30); and a selection step of selecting the connection information (control data D) in

response to a fall of the switching signal generated (Column 5 Line 67 – Column 6 Line 2).

Regarding to claim 8, Masuda teaches wherein the copying step reads out addresses and data contained in the connection information (control data D) written in the information writing step, in increasing address order, supplying the same to the read-out step, and the read-out step writes data of connection information, as supplied, to an address (address signal ADR) indicated by the connection information, as supplied, while reading out the data written in increasing address order; and using the data as read-out addresses for the data of the time slots written in the writing step (Column 1 Line 26-30).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murata et al. in view of Kawai (US 4,972,407).

Regarding to claim 4, Masuda teaches a digital switching system, comprising: multiplexing means 1 for multiplexing time slots from a first plurality

of circuits (Column 1 Line 15-18); switching memory 20 means for storing and switching data of the time slots from the multiplexing means, for one frame period; switching control means 10 including a switching correspondence means 10 for directing interchange of the time slots stored in the switching memory means 20 in response to a switching request (write control signal 306) from a network received through an upper layer controller (Column 1 Line 26-30); and demultiplexing means 2 for demultiplexing into a second plurality of circuits (Column 1 Line 18-22), time slot data read out of the switching memory means 20 using as addresses data from the switching correspondence means 10 (Column 1 Line 26-30), wherein the switching correspondence means 10 comprises: information receiving means 112, 113 for receiving connection information (control data D) corresponding to before or after switching from the upper layer controller 40 (Column 6 Line 45-49); network switching control means 30 for generating a switching signal (WS and SE in Column 5 Line 40-41) in synchronization with an internal timing standard (Column 4 Line 38-39) in response to the switching request (write control signal 306) provided by the upper layer controller 40; read-out controlling means for storing the connection information (control data D), and for sequentially reading out the stored connection information in read-out order of the switching memory means 20 (Column 6 Line 34-37); Murata, however, does not teach

working memory means for storing the connection information from the information receiving means, the working memory means reading out as a read-out signal the stored connection information in response to the switching signal from the network switching control means; read-out selection means for selecting the connection information from one of the working memory means and the information receiving means, and outputting the selected connection information in response to the switching signal from the network switching control means. Kawai teaches working memory means 43 for storing the connection information from the information receiving means 44, the working memory means reading out as a read-out signal the stored connection information in response to the switching signal from the network switching control means; read-out selection means 42 for selecting the connection information from one of the working memory means 43 and the information receiving means 44, and outputting the selected connection information in response to the switching signal from the network switching control means (Figure 4). It would have been obvious to one skilled in the art to modify Murata to have a selector to choose between the working memory and the information receiving means as taught by Kawai in order to reduce hardware size (Column 2 Line 18-19).

***Response to Arguments***

5. Applicant's arguments filed April 20, 2005 have been fully considered but they are not persuasive.

In response to pages 9-10, applicant argues that Murata does not teach switching memory means for storing and switching data of the time slots from the multiplexing means, for one frame period. Even though, Murata teaches using two memories, 250 and 260, the data is stored and switched one frame at a time (Column 4 Line 24-28). Therefore, Murata teaches processing data for one frame period. Applicant, further, argues that Murata does not teach the path controller 40 as an upper layer controller. The path controller 40 acts as an upper layer controller by being a separate unit providing the connection information to the control memory 10 which in turn control the switching of the data in the speech memory 20. Therefore, Murata teaches information receiving means for receiving connection information from the upper layer controller.

6. Applicant's arguments with respect to claim 4 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clemence Han whose telephone number is


(571) 272-3158. The examiner can normally be reached on Monday-Thursday 7 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.H.

Clemence Han  
Examiner  
Art Unit 2665



STEVEN NGUYEN  
PRIMARY EXAMINER